Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1 (currently amended): A method for detecting early fires in a predetermined area, the method comprising:

(a) capturing a plurality of images of the predetermined area during an interval for generating a plurality of difference frames;

(b) detecting a number of pixels that have fire characteristics in each difference frame by determining if each pixel of each difference frame satisfies the ~~relationship~~ relationships R>Rt and R ≥ G≥B, where R is a value of a red component of the pixel, ~~and~~ Rt is a threshold of the red component, G is a value of a green component of the pixel, and B is a value of a blue component of the pixel; and

(c) if the result of step (b) indicates that a flame in the predetermined area substantially increases during the interval, outputting an early fire alarm.

2-3 (cancelled).

4 (original): The method of claim 1 wherein in step (c), if the result of step (b) indicates that a ratio of spreading flame in the predetermined area is over a threshold of spreading flame during the interval, then outputting the early fire alarm.

5 (previously presented): The method of claim 1 wherein step (a) includes:

comparing two images captured for generating a difference of the two images; and

removing noise from the difference for generating a difference frame.

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6 (previously presented): A method for detecting a number of pixels that have fire characteristics in a difference frame, the method comprising:

determining if each pixel of the difference frame complies with the following rules:

R>Rt;

R≧G>B; and

S≧((255-R)*St/Rt);

wherein R is a value of a red component of the pixel, Rt is a threshold of the red component, G is a value of a green component of the pixel, B is a value of a blue component of the pixel, S is saturation of the pixel, and St is a threshold of saturation; and

if a pixel complies with the above rules, adjusting the number of pixels that have fire characteristics of the difference frame.

7 (original): The method of claim 6 wherein when the value of the red component of a pixel is Rt, the saturation of the pixel is St.

8 (original): The method of claim 6 wherein a video detecting system captures images in a predetermined area and the difference frame is generated by removing noise of a difference of two images captured by the video detecting system.

9 (currently amended): A video detecting system comprising:

an image capturing device for capturing images;

a logic unit for performing the following steps:

(a) controlling the image capturing device to capture a plurality

of images of a predetermined area during an interval for generating a plurality of difference frames;

(b) detecting a number of pixels that have fire characteristics in each difference frame by determining if each pixel of each difference frame satisfies the ~~relationship~~ relationships R>Rt and R ≥ G>B, where R is a value of a red component of the pixel, ~~and~~ Rt is a threshold of the red component, G is a value of a green component of the pixel, and B is a value of a blue component of the pixel; and

(c) if the result of step (b) indicates that a flame in the predetermined area substantially increases during the interval, outputting an early fire alarm.

10-11 (cancelled).

12 (original): The video detecting system of claim 9 wherein if the result of step (b) indicates that a ratio of spreading flame in the predetermined area is over a threshold of spreading flame during the interval, the logic unit outputs the early fire alarm.

13 (original): The video detecting system of claim 9 wherein step (a) performed by the logic unit includes:

comparing two images captured for generating a difference of the two images; and

removing noise from the difference for generating a difference frame.

14 (cancelled).

15 (original): The video detecting system of claim 9 wherein the logic unit is a program code.

16 (previously presented): A video detecting system comprising:

an image capturing device for capturing images;

a logic unit for performing the following steps:

(a) determining if pixels of difference frames complies with the following rules, the difference frames generated from images captured by the video detecting system:

$R>Rt$;

$R \geqq G>B$; and

$S \geqq ((255-R)*St/Rt)$;

wherein R is a value of a red component of the pixel, Rt is a threshold of the red component, G is a value of a green component of the pixel, B is a value of a blue component of the pixel, S is saturation of the pixel, and St is a threshold of saturation; and

(b) if a pixel complies with the above rules, adjusting a number of pixels that have fire characteristics of the difference frame.

17 (original): The video detecting system of claim 16 wherein when the value of the red component of a pixel is Rt, the saturation of the pixel is St.

18 (original): The video detecting system of claim 16 wherein step (a) performed by the logic unit includes:

comparing two images captured for generating a difference of the two images; and

removing noise from the difference for generating a difference frame.

19 (cancelled).

20 (original): The video detecting system of claim 16 wherein the logic unit is a program code.

21 (currently amended): The method of ~~claim 2~~ claim 1 wherein determining the number of pixels that have fire characteristics in each difference frame further comprises determining if each pixel of each difference frame satisfies the relationship $S \geqq ((255-R)*St/Rt)$, wherein S is saturation of the pixel and St is a threshold of saturation.

22 (previously presented): The method of claim 21 wherein when the value of the red component of a pixel is Rt, the saturation of the pixel is St.

23 (currently amended): The video detecting system of ~~claim 10~~ claim 9 wherein determining the number of pixels that have fire characteristics in each difference frame further comprises determining if each pixel of each difference frame satisfies the relationship $S \geqq ((255-R)*St/Rt)$, wherein S is saturation of the pixel and St is a threshold of saturation.

24 (previously presented): The video detecting system of claim 23 wherein when the value of the red component of a pixel is Rt, the saturation of the pixel is St.

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